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INFORMATION DISCLOSURE	Application
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February 11, 2000		
Philip John Burke		
1643		
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	09/445,865 February 11, 2000 Philip John Burke 1643	

			U.S. PATENT DOCU	MENTS			
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		4,582,800	Crowl	04-15-1986	435	70	
- -	1	4,677,063	Mark, et al.	06-30-1987	435	68	
	 	4,678,751	Goeddel	07-07-1987	435	243	
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- 1 -		4,710,463	Murray	12-01-1987	435	68	
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		EP	0 302 473	A2	Bristol-Myers Co.	02-08-1989		1
		EP	0 415 731	A2	The Wellcome Foundation Ltd.	03-06-1991		
		WO.	88/07378	A1	Cancer Research Campaign Technology Ltd.	10-06-1988	ν	
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		ANLEZARK, et al., "The bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB1954)I. Purification and properties
W		of a nitroreductase enzyme from Escherichia colia potential enzyme for antibody-directed enzyme prodrug therapy
		BETTER, et al., "Escherichia coli secretion of an active chimeric antibody fragment," Science 240(4855):1041-43 (1988).
		BIRD, et al., "Single-chain antigen-binding proteins," Science 242(4877):423-26 (1988).
		BISCHOFF, et al., "An adenovirus mutant that replicates selectively in p53-deficient human tumor cells," Science
		274(5286):373-76 (1996).
BO der		BOLAND, et al., "The differences in kinetics of rat and human DT diaphorase result in a differential sensitivity of derived cell lines to CB 1954 (5-(aziridin-1-yl)-2,4-dinitrobenzamide)," <i>Biochem. Pharmacol.</i> 41(6-7):867-75 (1991).
		BRADL, et al., "Malignant melanoma in transgenic mice," Proc. Natl. Acad. Sci. U. S. A. 88(1):164-68 (1991).
		BRAWER, "Prostate specific antigen. A review," Acta. Oncol. 30(2):161-68 (1991).
-	_	CHEN, et al., "Expression of rat liver NAD(P)H:quinone-acceptor oxidoreductase in Escherichia coli and mutagenesis in
		vitro at Arg-177," Biochem. J. 284 (Pt 3):855-60 (1992).
		CHEN, et al., "Molecular basis of the catalytic differences among DT-diaphorase of human, rat, and mouse," J. Biol. Chem. 272(3):1437-39 (1997).
_		CLARK, et al., "Role of the Bp35 cell surface polypeptide in human B-cell activation," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 82(6):1766-70 (1985).

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(m)		between glucu	ronidase activity and tu	umour sensitivity," <i>Nature</i> 210	(36).600-07 (13		
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		antibody," Can	ncer Immunol. Immunot	ther. 24(2):138-43 (1967).		ur by a hybrid-hybrid monoclon	al
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.		COTTEN, et al endosome-disr	., "High-efficiency rece uption activity of defec	ctive or chemically inactivated	auenovirus partic	ilobase gene constructs using the cles," Proc. Natl. Acad. Sci. U.	
		COUSSENS, e with neu onco	t al., "Tyrosine kinase i gene," <i>Science</i> 230(47	730):1132-39 (1985).		otor shares chromosomal locatio	n
		tumors," Sciei	nce 256(5063):1550-5				
+						rog. Med. Virol. 40:1-18 (1993)	
(W)		prodrug CB19	54," Gene Ther. 4(2):9	93-100 (1997).		ts in specific cell killing by the	
(M)	-	FRIEDLOS & I	KNOX, "Metabolism of enzyme therapy system	NAD(P)H by blood component n," Biochem. Pharmacol. 44(4)	s. Relevance to t :631-35 (1992).	pioreductively activated prodrug	s

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		OTHER ART NON PATENT LITERATURE DOCUMENTS
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W		FRIEDLOS, et al., "Identification of novel reduced pyridinium derivatives as synthetic co-factors for the enzyme DT diaphorase (NAD(P)H dehydrogenase (quinone), EC 1.6.99.2)," Biochem. Pharmacol. 44(1):25-31 (1992).
		FRIEDLOS, et al., "Potentiation of CB 1954 cytotoxicity by reduced pyridine nucleotides in human tumour cells by stimulation of DT diaphorase activity," <i>Biochem. Pharmacol.</i> 44(9):1739-43 (1992).
		GILLILAND, et al., "Universal bispecific antibody for targeting tumor cells for destruction by cytotoxic T cells," Proc. Watl. Acad. Sci. U. S. A. 85(20):7719-23 (1988).
1		GREEN, et al., "Sensitization of colorectal and pancreatic cancer cell lines to the prodrug 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB1954) by retroviral transduction and expression of the E. coli nitroreductase gene," Cancer Gene Ther, 4(4):229-38 (1997).
		HARWOOD, et al., "Comparative tumour localization of antibody fragments and intact IgG in nude mice bearing a CEA-producing human colon tumour xenograft," Eur. J. Cancer Clin. Oncol. 21(12):1515-22 (1985).
		HELLSTRÖM, et al., "Monoclonal mouse antibodies raised against human lung carcinoma," Cancer Res. 46(8):3917-23 (1986).
		HURRELL, "Monoclonal Hybridoma Antibodies: Techniques and Applications," (CRC Press).
		HUSTON, et al., "Protein engineering of antibody binding sites: recovery of specific activity in an anti-digoxin single-chain Fv analogue produced in Escherichia coli," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 85(16):5879-83 (1988).
	-	JACKSON, et al., "The tyrosinase-related protein-1 gene has a structure and promoter sequence very different from tyrosinase," <i>Nucleic Acids Res.</i> 19(14):3799-804 (1991
		JAISWAL, "Human NAD(P)H:quinone oxidoreductase2. Gene structure, activity, and tissue-specific expression," <i>J. Biol. Chem.</i> 269(20):14502-08 (1994).

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00		JAISWAL, "Nucleotide and deduced amino acid sequence of a human cDNA (NQO2) corresponding to a second
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1	1	relationships," Chem. Biol. Interact. 1(1):27-47 (1969).
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	1	KNOX, et al., "The bioactivation of 5-(aziridin-1-yl)-2,4-dinitrobenzamide (CB1954)II. A comparison of an Escherichia
	1	coli nitroreductase and Walker DT diaphorase," Biochem. Pharmacol. 44(12):2297-301 (1992).
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	+-	KURIYAMA, et al., "A potential approach for gene therapy targeting hepatoma using a liver-specific promoter on a
- 1	1	retroviral vector," Cell Struct. Funct. 16(6):503-10 (1991).
1	1	
		LEDLEY, "Nonviral gene therapy: the promise of genes as pharmaceutical products," Hum. Gene Ther. 6(9):1129-44
	1	(1995).
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	1	LIAO & WILLIAMS-ASHMAN, "Enzymatic oxidation of some non-phosphorylated derivatives of dihydronicotinamide,"
1		Biochem. and Biophys. Res. Comm. 4:208-13 (1961).
	1	1
		LIAO & WILLIAMS-ASHMAN, "Inhibition of the enzymic oxidation of some dihydropyridines by polycyclic aromatic
	1	hydrocarbons," Biochem. Pharmacol. 6:53-54 (1961).
1	1	
		LIAO, et al., "Purification and properties of a flavoprotein catalyzing the oxidation of reduced ribosyl nicotinamide," J.
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10		LUNDWALL, "Characterization of the gene for prostate-specific antigen, a human glandular kallikrein," <i>Biochem</i> . <i>Biophys. Res. Commun.</i> 161(3):1151-9 (1989).	
<u> </u>		MARTIN & PAPAHAJOPOULOS, et al., "Irreversible coupling of immunoglobulin fragments to preformed vesicles. An improved method for liposome targeting," <i>J. Biol. Chem.</i> 257(1):286-8 (1982).	_
-		MAUGER, et al., "Self-immolative prodrugs: candidates for antibody-directed enzyme prodrug therapy in conjunction with a nitroreductase enzyme," <i>J. Med. Chem.</i> 37(21):3452-58 (1994).	
+		MICHAEL, et al., "Addition of a short peptide ligand to the adenovirus fiber protein," Gene Ther. 2(9):660-68 (1995).	
		MILLER & VILE, "Targeted vectors for gene therapy," FASEB J. 9(2):190-99 (1995).	
-		MORRISON, et al., "Chimeric human antibody molecules: mouse antigen-binding domains with human constant region domains," <i>Proc. Natl. Acad. Sci. U. S. A.</i> 81(21):6851-55 (1984).	
		NASSANDER, et al., "In vivo targeting of OV-TL 3 immunoliposomes to ascitic ovarian carcinoma cells (OVCAR-3) in athymic nude mice," Cancer Res. 52(3):646-53 (1992).	
	-	NEUBERGER, et al., "Recombinant antibodies possessing novel effector functions," <i>Nature</i> 312(5995):604-08 (1984).	
_	-	O'SULLIVAN, et al., "Comparison of two methods of preparing enzyme-antibody conjugates: application of these conjugates for enzyme immunoassay," <i>Anal. Biochem.</i> 100(1):100-08 (1979).	
	 	RIEGMAN, et al., "Characterization of the prostate-specific antigen gene: a novel human kallikrein-like gene," Biochem. Biophys. Res. Commun. 159(1):95-102 (1989).	

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JUL 1 6 2000 E	First Named Inventor	Philip John Burke
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		SAIKI, et al., "Primer-directed enzymatic amplification of DNA with a thermostable DNA polymerase," Science	
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W.		239(4839):487-91 (1988).	
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- [SAMBROOK, et al., Molecular Cloning: A Laboratory Manual Cold Spring Harbor Laboratory Press, Cold Spring	
- I - 1		SAMBHOOK, GLOWING CO.	
1 1		Harbor:New York (1989).	
1		SCHREWE, et al., "Cloning of the complete gene for carcinoembryonic antigen: analysis of its promoter indicates a	
	-	SCHREWE, et al., "Cloning of the complete gene for carcinoemoryonic arrivals of its promoter melastics."	
1 1		region conveying cell type-specific expression," Mol. Cell. Biol. 10(6):2738-48 (1990).	
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	ļ	SHARMA, et al., "Inactivation and clearance of an anti-CEA carboxypeptidase G2 conjugate in blood after localisation	
	ł	SHARMA, et al., "Inactivation and clearance of all attacks," specifically to the state of the st	
1 1		in a xenograft model," Br. J. Cancer. 61(5):659-62 (1990).	
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		SHERWOOD, "Advanced drug delivery reviews: enzyme prodrug therapy," Adv. Drug Del. Rev. 22:269-88 (1996).	
		SHERWOOD, Advanced didg dollary remains	
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		Tabajahia Calanga	
	-	SKERRA, et al., "Assembly of a functional immunoglobulin Fv fragment in Escherichia coli," Science	
1		240(4855):1038-41 (1988).	
			_
		TROWELL, "The cytocidal action of mitotic poisons on lymphocytes in vitro," Biochemical Pharmacology 5:53-63	
		TROWELL, "The cytocidal action of mitotic poisons on lymphocytes "," who,	
		(1960).	ı
- 1	1		-
	┼─	WAGNER, et al., "Transferrin-polycation conjugates as carriers for DNA uptake into cells," Proc. Natl. Acad. Sci. U.	1
	1	WAGNER, et al., Training polyouter buyer	ı
- 1	1	S. A. 87(9):3410-14 (1990).	ı
]		the line resign to domains spectated from Escherichia	Г
	1	WARD, et al., "Binding activities of a repertoire of single immunoglobulin variable domains secreted from Escherichia	ĺ
1	1	coli," Nature 341(6242):544-46 (1989).	ı
1	1	1	L
		WHISSON & CONNORS, "Cure of mice bearing advanced plasma cell tumours with aniline mustard," Nature	
		WHISSON & CONNORS, "Cure of mice bearing advanced plasma centralities with administration medians,"	1
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1	1	206(985):689-91 (1965).	

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6		WINTER & MILSTEIN, "Man-made antibodies," <i>Nature</i> 349(6307):293-99 (1991).	
3	*	WU, et al., "Catalytic properties of NAD(P)H:quinone oxidoreductase-2 (NQO2), a dihydronicotinamide riboside dependent oxidoreductase," <i>Arch. Biochem. Biophys.</i> 347(2):221-28 (1997).	
W		ZOLA, "Monoclonal Antibodies: A manual of techniques," (CRC Press, 1988).	
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